

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A computer printing system for a client-server computer system, comprising a host server, optionally connected to one or more printers, and one or more remotely  
5 connected client computers, which are connected with one or more printers, wherein a universal printer driver is located on, or under the control of the host server, which universal printer driver, on receipt of a print request from a client computer, converts a non-universal print file to a compressed, transmittable file that is sent to, and which can be interpreted by a universal print file reader located on, a printer server system, so that a  
10 universal print file is transmitted, under the control of the host server, to at least one of said printers.

2. A computer printing system as claimed in Claim 1 wherein said printer server system is the client computer and a printer connected to, or under the control of the client computer.

3. A computer printing system as claimed in Claim 1 wherein said universal printer driver is installed on the host server, and said universal printer reader is installed on the client computer.

4. A computer printing system as claimed in Claim 1 wherein the universal printer driver is able to compress the printer file into a smaller file which can be  
20 transmitted more rapidly than the original, larger printer file.

5. A computer printing system as claimed in Claim 4 wherein the universal printer driver compresses the printer file to a file size which is less than 90% of its original size.

6. A computer printing system as claimed in Claim 4 wherein the universal printer driver compresses the printer file to a file size which is less than 75% of its original size.

7. A computer printing system as claimed in Claim 4 wherein the universal printer driver compresses the printer file to a file size which is less than 50% of its original size.

5 8. A computer printing system as claimed in Claim 1 wherein the universal printer driver is one in which the driver is not dependent on the operating system, and can prepare a print file which can be transmitted to any number of different operating systems.

10 9. A computer printing system as claimed in Claim 1 wherein the universal printer driver can create a print file which can be sent to a variety of machines including computers running Windows operating systems, Apple computers, VAX computers, computers running under a UNIX operating system, thin-client configurations, Network PCs, NCs, and PDAs.

15 10. A computer printing system as claimed in Claim 1 wherein said universal printer drivers creates files of the type commonly used with the file extensions of "tif" or "pdf".

11. A computer printing system as claimed in Claim 1 wherein said universal printer driver creates files of the type commonly used with the file extension "pdf".

12. A computer printing system as claimed in Claim 1 wherein the universal printer driver is installed on a server running Citrix MetaFrame.

20 13. A computer printing system as claimed in Claim 1 wherein said host server is a host server capable of running Citrix MetaFrame.

14. A computer printing system as claimed in Claim 1 wherein the host server and the client computer may be connected through direct connections or by wireless connections.

15. A computer printing system as claimed in Claim 1 wherein the host server and the client computer are connected as part of a networked computer system.

16. A computer printing system as claimed in Claim 1 wherein the networked computer system comprises a WAN, a LAN, an intranet or Internet connection.

5 17. A computer printing system as claimed in Claim 1 wherein the printer server system comprises a separate, dedicated PC for forwarding the universal print file directly to the printer without passing through the local, remote computer.

10 18. A computer printing system as claimed in Claim 1 wherein the printer file is sent from the host server to a separate computerized system for conversion to a compressed, transmittable file, before the compressed transmittable file is sent to the remote client computer.

19. A computer printing system as claimed in Claim 1 wherein the compressed transmittable file is sent to an electronic mail system of the host server, and sent to the client as an e-mail file.

15 20. A method for printing in a client-server computer printing system having a host server, optionally connected to one or more printers, and one or more remotely connected client computers, which are connected with one or more printers, comprising, requesting a print file from a host server by a client computer, to a printer server system,

20 translating the print file into a compressed, transmittable file using a universal printer driver located on, or under the control of the host server,  
transmitting the compressed transmittable file to said printer server system,  
translating the compressed transmittable file to a universal print file suitable for use by a printer connected to the printer server system by using a universal print file reader  
25 located on said printer server system, and

transmitting said universal print file to at least one of said printers so that said print file is printed.

21. A method as claimed in Claim 20 wherein said printer server system is the client computer and a printer connected to, or under the control of the client computer.

5 22. A method as claimed in Claim 20 wherein said universal printer driver creates files of the type commonly used with the file extensions of "tif" or "pdf".

23. A method as claimed in Claim 20 wherein said universal printer driver creates files of the type commonly used with the file extension "pdf".

10 24. A method as claimed in Claim 20 wherein the universal printer driver is installed on a server running Citrix MetaFrame.

25. A method as claimed in Claim 20 wherein said host server is a host server capable of running Citrix MetaFrame.

26. A method as claimed in Claim 20 wherein the host server and the client computer may be connected through direct connections or by wireless connections.

15 27. A method as claimed in Claim 20 wherein the host server and the client computer are connected as part of a networked computer system.

28. A method as claimed in Claim 20 wherein the networked computer system comprises an intranet or Internet connection.